

Amendments to the Claims:

1-67. (canceled)

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68. (currently amended) A method for altering the amino acid composition of a vegetative storage protein, The method of Claim 58, wherein said vegetative storage protein which is VSP $\beta$ , said method comprising:

- a) introducing amino acid changes into said protein to create an engineered protein, wherein said amino acid changes alter the content of nutritionally essential amino acids in said protein by at least 5%; and
- b) assessing the conformation of said engineered protein based on its ability to bind with a set of antibodies capable of binding with the native protein, wherein said antibodies recognize the native conformation of said protein.

69. (currently amended) A method for altering the amino acid composition of a VSP $\beta$ , said method comprising:

- a) introducing amino acid changes into VSP $\beta$  to create an engineered VSP $\beta$  having increased nutritional value, wherein said amino acid changes increase levels of at least one nutritionally essential amino acid in the engineered VSP $\beta$  so that nutritionally essential amino acids are increased to represent at least 5% of the total amino acid content of the engineered VSP $\beta$ ; and
- b) assessing whether said the conformation of said engineered VSP $\beta$  has the conformation of the native VSP $\beta$  based on its ability to bind with a set of antibodies capable of binding with native VSP $\beta$ , wherein said antibodies recognize the native conformation of said native VSP $\alpha$ , VSP $\beta$ , or both.

70. (canceled)

71. (currently amended) The method of Claim [[58]] 68, wherein said antibodies are monoclonal antibodies.